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AN IMPROVED SCREENING MODEL FOR ROTC PILOT CANDIDATES  
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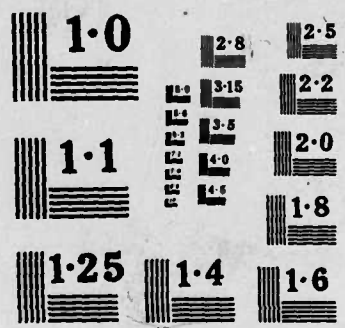
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# AIR COMMAND AND STAFF COLLEGE

## STUDENT REPORT

AN IMPROVED SCREENING MODEL FOR ROTC  
PILOT CANDIDATES

MAJOR WILLIAM E. SHEPARD 85-2375

*"insights into tomorrow"*

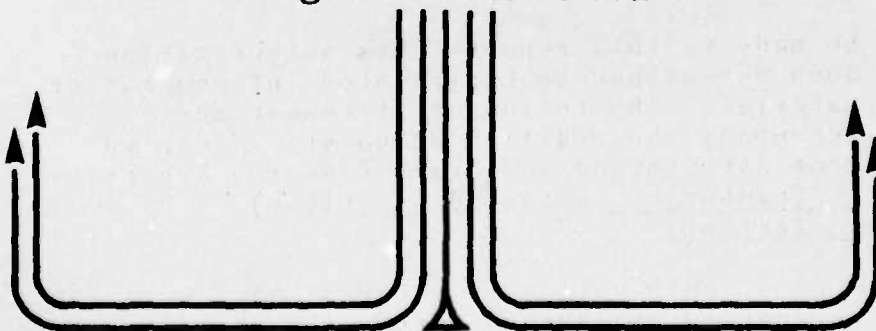
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**REPORT NUMBER** 85-2375

**TITLE** AN IMPROVED SCREENING MODEL FOR ROTC PILOT CANDIDATES

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Submitted to the faculty in partial fulfillment of  
requirements for graduation.

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19. ABSTRACT (Continue on reverse if necessary and identify by block number) <i>(UPT) attrition of former ROTC cadets has reached unacceptably high levels. As a result, ROTC must take new steps to more effectively screen potential UPT candidates. An improved screening model must incorporate (FSP) initiatives which emphasize a screening philosophy and operational elements derived from a more structured screening syllabus. Thus, ROTC screening alternatives are evaluated using an FSP orientation. A mix of screening alternatives will ultimately be required to efficiently screen the required number of ROTC pilot candidates. A more structured syllabus, complemented by a new screening philosophy, provides the impetus for a truly effective screening model.</i> <i>Flight Screening Program</i> <i>Please correct charts and</i>					
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## PREFACE

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Undergraduate Pilot Training (UPT) attrition of former ROTC students has climbed to extremely high levels, rising from 13.4% in FY79 to 28.1% in FY84. Historically, the ROTC Flight Instruction Program (FIP) has been unable to effectively screen for UPT. Total FIP attrition during these years has remained at a relatively low 7 to 10%. As a result, ROTC must implement new initiatives which more effectively screen for the UPT environment.

The required background for this study would have been impossible without the support of ROTC's "FIP experts"--Ms Alice Cox and Capt. William M. Umberger. Additionally, Mr. Frank Mayo, Vice-President of Doss Aviation, civilian contractor for the Flight Screening Program, continues to be an avid supporter of effective flight screening. Their support was unlimited. Major John Lockney also provided the moral support and evaluative expertise essential for a more complete study. With our combined efforts, this study attempts to provide a foundation for establishing a more credible ROTC screening program.

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## ABOUT THE AUTHOR

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WILLIAM E. SHEPARD

William E. Shepard, a native of Abbott, Texas, attended Texas A&M University as a ROTC scholarship student from 1967-72. After commissioning as a Second Lieutenant, he graduated from German Pilot Training at Sheppard AFB, Wichita Falls, Texas. He was assigned to the USAF Academy, Colorado, as a T-41 instructor pilot in the Pilot Indoctrination Program. While at the Academy, he attended SOS in residence at Maxwell AFB, Alabama. Major Shepard returned to Sheppard AFB in 1976 and served as a T-37 instructor pilot for two years, flying with German undergraduate pilot candidates. Because of his light aircraft and international student experience, he was reassigned to Officer Training School, Lackland AFB, Texas, during 1978 as Branch Chief of Flight Screening. He became a Technical Representative for the Contract Officer, monitoring Doss Aviation in the T-41 Flight Screening Program. As the Chief of Standardization and Evaluation, he was responsible for all military and civilian evaluations, as well as an ATC Stan-Eval flight evaluator of the USAF Academy T-41 program. Major Shepard was personally recognized for many FSP screening initiatives which effectively reduced UPT attrition. He was acknowledged as an ATC Instructor Pilot of the Year from OTS. During 1980, he attended C-5A training at Altus AFB, Oklahoma, and was assigned to 22 MAS at Travis AFB, California. While at Travis, Major Shepard obtained a Master's Degree in Public Administration from Golden Gate University and was selected to attend ACSC in residence. He is currently working toward a PHD in Public Administration from the University of Alabama. After ACSC graduation, Major Shepard will become an ACSC faculty instructor.



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## EXECUTIVE SUMMARY

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**REPORT NUMBER** 85-2375

**AUTHOR(S)** MAJOR WILLIAM E. SHEPARD, USAF

**TITLE** AN IMPROVED SCREENING MODEL FOR ROTC PILOT CANDIDATES

I. Purpose: This study presents a more effective ROTC flight screening model by emphasizing a new screening philosophy and operational criteria derived from a structured syllabus.

II. Problem: Undergraduate Pilot Training (UPT) attrition of former ROTC students has climbed from 13.4% in FY79 to 28.1% in FY84. At the same time, ROTC attrition in its Flight Instruction Program (FIP) has remained at a relatively low 7 to 10%. As a result of poor ROTC screening for UPT, ROTC must initiate new alternatives which results in a more credible screening model for its UPT candidates.

III. Data: Flight screening is founded on a premise that a low attrition rate in UPT is the result of an effective screening model. Although ROTC has implemented changes in FIP, it has not addressed initiatives which emphasize a new screening philosophy nor operational criteria found in a

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## CONTINUED

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structured syllabus. As a result, FIP is confronted with instructor and evaluator "flaws" which offer little screening impetus. Additionally, a loosely constructed syllabus provides neither training guidance nor boundaries for civilian contractors or military evaluators. Thus, screening takes a back seat to indoctrination and motivation in ROTC's flight program. The Flight Screening Program (FSP) offers new incentives to rejuvenate ROTC's screening objective. FSP's structured syllabus establishes rigid operational screening demands requiring more direct military involvement and control. Overall, FSP's standardized approach sets the tone for a more credible screening philosophy. For these reasons, screening alternatives proposed by ROTC must be evaluated, not only by necessary logistical criteria, but more importantly, by proven FSP criteria which more effectively screen for UPT.

IV. Conclusions: ROTC recognizes the failure of FIP to screen its pilot candidates for UPT and seeks a new screening direction. However, as new alternatives are introduced, they must be tempered with a new screening philosophy and operational criteria found in a structured syllabus. Without these essentials, ROTC's new initiatives will eventually be added to former initiatives which have failed in their quest for more effective UPT screening.

V. Recommendations: ROTC must restructure its screening program. Foremost, a new structured syllabus promoting a screening philosophy must be adopted. Next, a well-trained and informed cadre of ROTC screening experts must not only monitor, but also, fly with civilian contract instructors and students to assure quality control. Overall, ROTC's flying program must become dedicated to only one major purpose--screening.

## Chapter One

### INTRODUCTION

A United States Air Force pilot represents significant investment of time, money, and scarce resources. This investment demands that the most qualified, best screened individuals be selected to attend Undergraduate Pilot Training (UPT). The 1982 Pilot Selection and Screening Conference echoes this idea:

Due to escalating costs of training and increased complexity of our weapon systems, it is increasingly imperative that we pick the best qualified candidates to enter UPT. Many indicators point to the need to improve our ability to select successful pilot candidates. Some examples are rising attrition rates, demanding mission requirements and increased training costs (6:1).

UPT training and attrition is very costly. The FY81 average cost per graduate was \$276,500 (10:1). However, by FY83 the average cost per graduate had escalated to \$325,000 (13). This increase is due to inflation in all areas, pay raises, and increased pilot attrition. Attrition cost is an add-in to the graduated student's total cost. In FY79 the average cost per T-37 eliminee was \$28,082 while an attrited student in the T-38 phase was \$108,671 (10:1). For FY83, the cost had increased to \$35,295 for the T-37 eliminee and \$135,511 for the T-38 eliminee (13). The cost of eliminated students has reached unacceptable levels requiring renewed emphasis for a more efficient means of screening pilot candidates for UPT.



In addition to the staggering cost of UPT attrition, there has been an incredible rise of attrited ROTC students in UPT. While attrition in the ROTC flight programs has remained relatively constant, attrition in UPT has skyrocketed. Figure 1 visually supports this fact. This rapid increase in UPT attrition, together with its phenomenal cost, demands a more effective ROTC screening model.

#### STATEMENT OF PROBLEM

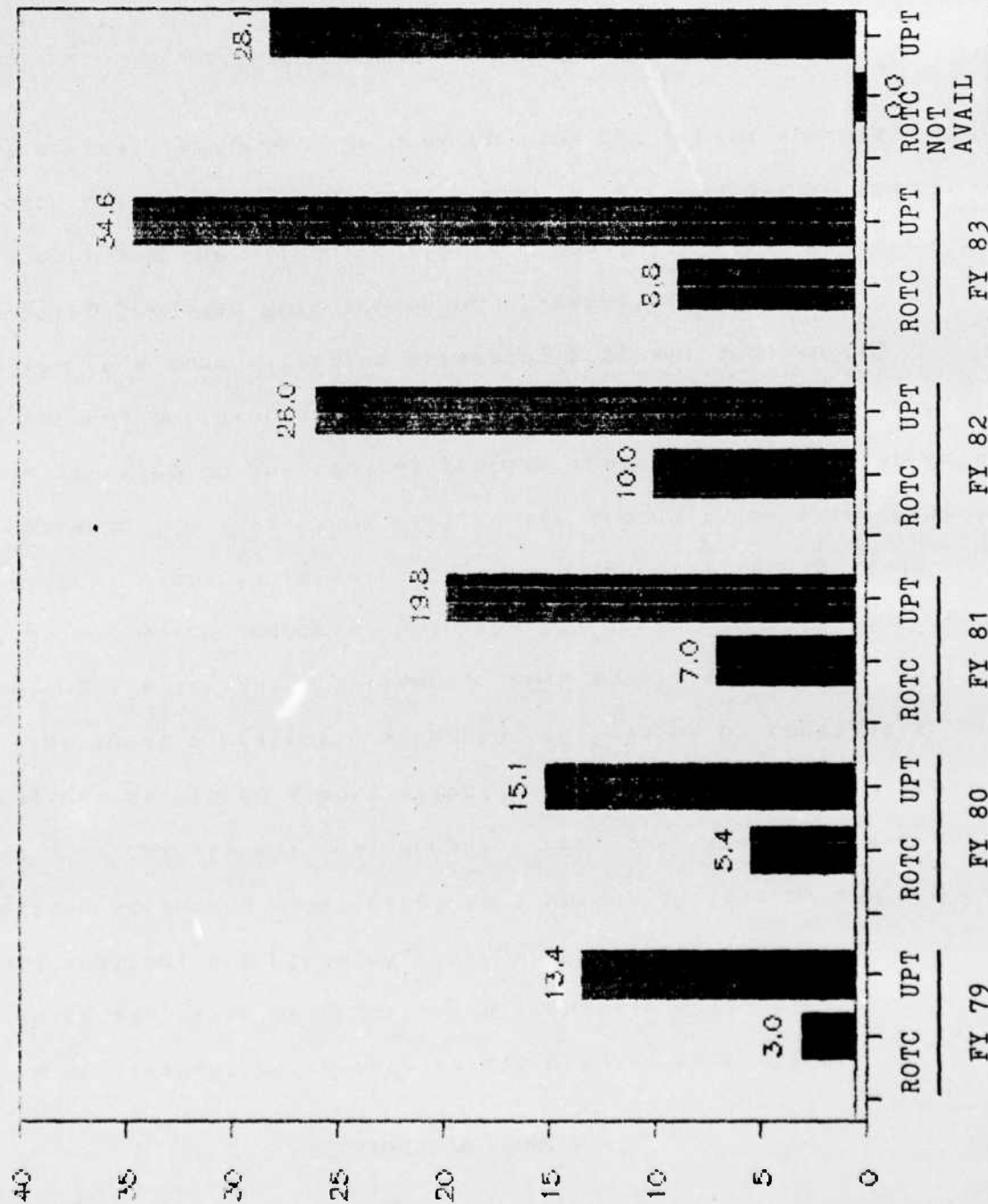
Can ROTC develop a more effective flight screening program in order to reduce the high UPT attrition rate?

#### OBJECTIVE OF STUDY

This study will investigate the present ROTC Flight Instruction Program (FIP) which selects pilot candidates entering UPT. Past ROTC initiatives to limit UPT attrition will be examined and evaluated. Special emphasis will focus on flight screening concepts of the Flight Screening Program (FSP). FIP and FSP will be compared regarding their philosophies and operational differences. Screening criteria will be developed along the lines now used by FSP. A review of ROTC screening alternatives will be presented and evaluated using a philosophy and operational criteria developed from FSP. Finally, a more effective ROTC screening alternative will be presented.

Many new terms and ideas unique to the flying environment are presented in this study as it presents ROTC's screening

# ROTC/UPT TOTAL ATTRITION BY FISCAL YEAR



FY 84

TOTAL % ATTRITION

dilemma. An overall objective of this study is to gain a more comprehensive understanding of the screening problem rather than confuse the reader with unfamiliar terms. Therefore, a legend (found at the end of Chapter 1) defines unique flying terms and ideas.

## RESEARCH APPROACH

A significant difference exists between pure flight screening and other programs which emphasize motivation, indoctrination, and pleasure flying. For this reason, an effective screening model requires a unique philosophy and a more structured operational environment. FSP, over the last several years, has developed a more effective screening approach. FSP has fine-tuned a realistic screening philosophy by constantly retooling its screening syllabus. ROTC should consider initiatives which encompass both the FSP screening philosophy and operational elements inherent in a structured syllabus. Thus, the research for this study will center around three main themes: first, focusing on the central problem areas associated with ROTC FIP; second, defining and highlighting FSP concepts which have resulted in a more effective screening program; and, third, evaluating proposed ROTC screening alternatives using FSP philosophy and operational criteria. Hopefully, this research approach will enable ROTC to make appropriate changes to its light aircraft program. By drawing from FSP's past success, ROTC

can transition to a more effective screening program and, in the process, produce a more qualified candidate for UPT entry.

#### LEGEND

FIP - Flight Instruction Program - ROTC light aircraft program for college ROTC cadets conducted at 133 detachments by civilian contractors

FSP - Flight Screening Program - consolidated light aircraft screening program at Lackland AFB, TX; actual flying conducted by civilian contractor at Hondo, Texas

Screening - Includes light aircraft instruction and evaluation. Purpose: eliminate substandard performers who do not have the potential to complete UPT

Syllabus - Set of overall guidelines used by the civilian contractor while conducting FIP or FSP

TRCO - Technical Representative to the Contract Officer - On sight military representative charged with monitoring the civilian contractor's performance

#### Causes of Flying Attrition

FLY - inability to meet syllabus directed flying requirements

ACAD - academic deficiency

MED - medically disqualification (Includes airsickness)

MOA - manifestation of apprehension - fear of flying

SIE - self initiated elimination

#### Evaluations (checkrides)

End of course check (category check) - given at the end of syllabus instruction (13.0 hrs. FSP and 12.0 hrs. FIP)

Special evaluation checks - includes IPC and FPC

Initial Progress Check (IPC) - given after substandard performance to evaluate skill level and student's ability to continue

Final Progress Check (FPC) - given after substandard performance to evaluate skill level, student's

continuance or recommendation for elimination

"Getting the student through" - inappropriate grading and evaluation of student performance to the extent that virtually all students pass

"Carrying the Student" - flying term which describes an instructor's misgrading and misrepresentation of a student's substandard performance. Instructor is hoping the student's performance improves enough to meet future syllabus guidelines

T-41 - Light Cessna aircraft used by the civilian contractor for flight instruction

T-37 - USAF twin seat, primary jet trainer located at each UPT wing

FSP Flying Hours:

0.6 hours pattern solo  
12.4 hours dual instruction  
1.0 hours dual evaluation

FIP Flying Hours:

0.5 hours pattern solo  
11.5 hours dual instruction  
1.0 hours dual evaluation

Staff Assistance Visits - visits conducted by FSP supervisors to UPT Wings to gain a more comprehensive understanding of the flying training environment

BIP - Buddy Instructor Pilot-an experienced instructor in FSP who provides assistance to new instructors and flies with their students

Continuation Training Meetings - weekly instructor meetings held within each FSP flight to discuss various aspects of screening and student management

Faculty Board - a fact finding board of three military officers which convenes to evaluate instruction, supervision, and evaluation of a FSP student recommended for elimination

Standardized Instruction - goal of FSP instructors to uniformly teach the same flying procedures. Sets the tone for fair evaluation

TDY - Temporary Duty Assignment - used in this study as a means for ROTC supervisors to temporarily visit FSP to gain screening experience

QAE - Quality Assurance Evaluator - military member who assures quality performance from the civilian contractor

PPL - Private Pilots License

UPT vs. FSP (FIP) Attrition Correlation - Flight screening strives for a very high, positive correlation between FSP (FIP) screening and UPT training. Ideally, as FSP (FIP) screening attrition goes up, UPT training attrition should go down. Therefore, the impetus of FSP screening is based on this concept--the ability to correctly identify students who do not have the potential to complete UPT. Once identified, substandard students are screened. As a result, low cost FSP (FIP) attrition replaces high cost UPT attrition.



## Chapter Two

### DEFINING THE PROBLEM: FIP/UPT ATTRITION

The Flight Instruction Program (FIP) is the oldest of the light aircraft programs. FIP was first authorized by Congress in 1956 on a trial basis and incrementally extended to 1964. In 1964, the program was made permanent (12). The current objectives of FIP are:

- a. To attract more qualified applicants to enroll in the Professional Officer Course as pilot applicants.
- b. To screen at the least expensive time those applicants who fail to meet the aptitude/attitude requirements for further pilot training.
- c. To motivate qualified applicants toward an Air Force flying career (7:U).

As can be seen from the objectives, two objectives are motivational (attract and motivate) while the remaining objective is screening.

ROTC has 133 operational FIP detachments throughout the United States (12). All training is accomplished by FAA approved civilian flying contractors under the supervision of a USAF active duty project officer. Acting as the Technical Representative to the Contracting Officer (TRCO), each project officer monitors contract compliance. Each FIP contractor is required to follow course guidelines in the FIP syllabus of instruction. ROTC students selected for pilot training, who do

not enter FIP, must complete FSP at Lackland AFB, Texas. In addition, ROTC pilot candidates who possess an FAA Private Pilots License (PPL) can by-pass FIP and FSP and report directly to UPT after college graduation (12).

With this brief overview of FIP, the ROTC screening problem is accentuated by comparing FIP and UPT attrition. FIP attrition has remained relatively constant as seen in Table 1. Total FIP attrition has remained between 8% and 10%. A slight increase in flying deficiencies has been noted over the past three years (1% to 2.7%), but flying attrition remains significantly low. Medical disqualification has been the largest single reason for attrition. The average cost per completed student remains a bargain at under \$1,000 (8). On the other hand, UPT statistics in Table 2 reveal a significant increase in attrition of ROTC students enrolled in UPT. Total attrition has more than doubled from FY79 (13.4%) to FY84 (28.1%). In FY83, an all time high UPT attrition of 34.6% was recorded. Flying training deficiency accounts for virtually all of the increase in total attrition, since the other causes of attrition have remained relatively constant. For FY84, 18.0% (145 out of 807) eliminated due to flying deficiencies. FY85 attrition will probably hold the same high rate as FY84 (3).

The high UPT attrition rate, compared to the low FIP attrition rate is very costly to the Air Force. The total cost of ROTC students who have attrited in the T-37 phase for FY84 comes to \$6.5 million (185 students X \$35,295 per student). When

TABLE I  
ROTC FIP ATTRITION

	<u>FY83</u>	<u>FY82</u>	<u>FY81</u>	<u>FY80</u>	<u>FY79</u>
Cadets entered	1374	855	872	781	521
Cadets comp.	1252(91%)	770(90%)	809(93%)	739(95%)	505(97%)
Cadets elim.	122(9%)	85(10%)	63( 7%)	42(5%)	16(3%)
Reasons:					
Flying	38( 2.7%)	14(1.5%)	11( 1%)	6( .7%)	8(1.5%)
SIE	30( 2.1%)	4( .5%)	12( 1%)	7( .9%)	1( .2%)
Medical	54( 3.9%)	24(3.9%)	22( 3%)	28(3.5%)	6(1.2%)
Admin.		43(5.0%)	18( 2%)	1( .1%)	1( .2%)
FIP Cost (\$)	1,093,500	850,000	841,500	589,000	401,500
Average Cost/ Comp. Stud.	\$797	\$1,104	\$1,040	\$797	\$795

TABLE 2  
UPT ATTRITION OF ROTC GRADUATES

<u>TOTAL % ATTRITION BY FY</u>						
<u>FY85</u>	<u>FY84</u>	<u>FY83</u>	<u>FY82</u>	<u>FY81</u>	<u>FY80</u>	<u>FY79</u>
(29.0%)	(28.1%)	(34.6%)	(26.0%)	(19.8%)	(15.1%)	(13.4%)

ATTRITION BY CAUSE OF FORMER ROTC STUDENTS

FY84 (All classes) T-37 only

<u>Net</u>	<u>Total</u>						
<u>Entry</u>	<u>Attrited</u>	<u>FLY</u>	<u>ACAD</u>	<u>MED</u>	<u>MOA</u>	<u>SIE</u>	<u>OTHER</u>
812	185	109	4	26	22	23	1
	(23.2%)	(13.4%)		(3.2%)	(2.7%)	(2.8%)	

FY84 (All classes) T-38 only

<u>Net</u>	<u>Total</u>						
<u>Entry</u>	<u>Attrited</u>	<u>FLY</u>	<u>ACAD</u>	<u>MED</u>	<u>MOA</u>	<u>SIE</u>	<u>OTHER</u>
622	42	36	1	2	0	2	1
	(6.8%)	(5.8%)					

FY84 Total Attrition (T-37 and T-38)

<u>Net</u>	<u>Total</u>						
<u>Entry</u>	<u>Attrited</u>	<u>FLY</u>	<u>ACAD</u>	<u>MED</u>	<u>MOA</u>	<u>SIE</u>	<u>OTHER</u>
807	227	145	5	28	22	25	2
	(28.1%)	(18.0%)		(3.5%)	(2.7%)	(3.0%)	

FY85 (Through 85-04) T-37 only

<u>Net</u>	<u>Total</u>						
<u>Entry</u>	<u>Attrited</u>	<u>FLY</u>	<u>ACAD</u>	<u>MED</u>	<u>MOA</u>	<u>SIE</u>	<u>OTHER</u>
579	134	80	4	23	12	13	2
	(23.1%)	(13.8%)	(.6%)	(3.9%)	(2.0%)	(2.2%)	

SOURCES: UPT Attrition - DOXP (30 SEP 84)  
ROTC Attrition - ROTC OPS&TNG PROGRESS REPORTS FY 79-83

combined with the cost of T-38 attrited students \$5.7 million (42 X \$135,511 per student), the total cost of ROTC attrition in UPT exceeds \$12 million (13). Conversely, the cost of each attrited student in FIP is approximately \$700 (12). Thus, ROTC must increase its low cost FIP attrition of substandard pilot candidates in order to reduce more costly UPT attrition. A considerable savings would be realized by a more effective screening program.

As a result of low ROTC FIP attrition and high UPT attrition of former ROTC students, officials at ROTC headquarters have made a number of changes over the last several years (12). They include:

1. Air Force Officer Qualifying Test (AFOQT): A pilot portion of AFOQT was added to more effectively test for latent pilot tendencies in ROTC cadets. This change may have more efficiently categorized pilot candidates, but it has had little effect on screening. The test continues to provide the quantity, but does not provide quality controls for students bound for UPT.

2. Pilot Candidate Selection Criteria: ROTC headquarters additionally streamlined the pilot candidate selection process. First, they sought candidates who already possessed a private license. Second, they preferred those with technical degrees (math, science, engineering, etc.). Third, a centralized selection process was established to review those with non-technical degrees. This centralized process probably selected an overall more qualified pilot candidate throughout the ROTC system, but has had little effect on UPT attrition.

3. Reduction of Flying Hours: Over the history of FIP, the total flying hours per candidate have been reduced from its original 36 to the current 13. It was hoped by reducing the hours, without a reduction in standards, a rise in FIP flying deficiency would occur. However, this has not been the case. A reduction in hours appears to be independent of UPT attrition.

4. Change in Payment Process to Contractor: In order to promote more attrition, a change was made in the payment process to the contractor. The contractor is paid the full contract amount even if the student eliminates before 13.0 hours. This

change has not significantly increased FIP flying training attrition. Since the change was made in 1982, UPT results cannot yet be evaluated.

5. Track UPT Attrition Rates and Analyze Results: A computer tracking system was developed to relate UPT attrition to each FIP detachment. The system identified poorly run FIP detachments and some have been eliminated. Since this is a recent management change, a decrease in UPT attrition cannot yet be correlated. This approach may hold some promise for eliminating substandard ROTC screening programs.

6. Summer Camp Field Training and Flight Screening at Lackland AFB, Texas: As a last ROTC initiative, a test program was conducted during the summer of 1984 using the FSP syllabus, contractor, and T-41 facilities at Hondo, Texas. ROTC cadets completed military and flight screening with the following results (12):

Entered	Completed	Attrited	FLY	SIE	MED	MOA
147	116	31	21	4	4	2
	(79%)	(21%)	(14.2%)	(2.7%)	(2.7%)	(1.3%)

Several conclusions can be drawn. Total attrition was approximately three times higher than FY83 FIP attrition. Flying training deficiency was over five times higher than FY83 FIP flying deficiency and 10 times higher than FY82. Other causes for attrition were consistent with those of FIP.

ROTC and USAF officials were extremely pleased with both the efficiency and screening of the test ROTC summer program. The ROTC attrition figures during the test are approximately the same as those of regular FSP attrition. Both ROTC and ATC officials state that virtually all ROTC cadets would be sent to Hondo (FSP) if the program could accommodate them. However, the maximum number of ROTC cadets which can be screened during the summer is approximately 450 (11). Additionally, the test program reinforces the premise that a structured syllabus, combined with tight military control, yields satisfactory screening results.

In conclusion, changes implemented by ROTC have not resulted in significant increases in FIP screening attrition, nor subsequent decreases in UPT attrition. Instead, they have streamlined the ROTC pilot selection process and increased administrative efficiency. Also, the question must be asked-- Why does FIP exist? If FIP's only purpose is to introduce and

motivate ROTC pilot candidates toward flying, that goal has been accomplished. On the other hand, if the purpose includes effectively and efficiently screening for UPT, thereby reducing UPT attrition, then FSP has failed. Screening can be accomplished along with motivation; however, the impetus for successful pilot screening lies in a philosophy change and a different operational environment (11).

ROTC officials continue to investigate new alternatives to more effectively screen ROTC pilot candidates, thereby reducing UPT attrition. The remainder of this study will focus on new philosophy changes which are essential for effective FIP screening. FIP and FSP will be contrasted and compared. Some operational screening criteria which are effectively used in FSP will be emphasized. Using FSP screening philosophy and operational criteria, proposed ROTC screening alternatives will be examined. Finally, a more effective screening program which ultimately reduces high UPT attrition will be proposed.



## Chapter Three

### A SCREENING PHILOSOPHY

ROTC has attempted many innovative changes to make FIP a more reliable screening tool. However, changes in candidate selection and testing, reduction of flying hours, changes in the payment process, and increased tracking of FIP/UPT attrition have not resulted in a significant increase in FIP screening, nor subsequent reduction in UPT attrition. As FIP attempts another series of administrative changes, new dimensions must be considered. Hopefully, these new dimensions will hold the key for a more successful screening program.

A more structured syllabus is a first dimension which requires attention. The FIP syllabus allows excessive civilian contractor interpretation. In order to fully comprehend this problem one must analyze two important elements of the civilian flying contract: the civilian instructor and the student evaluation process. The civilian instructor's role requires scrutiny. The FIP program is conducted under a relatively non-specific, loosely detailed set of instructions. Each individual instructor pilot is given great latitude about the "whens" and "hows" of his daily instruction. The FIP syllabus states:

The difference between student learning rates is recognized; therefore, the lesson content and order is

left to the direction of the Flight Instructor. Once the student has been demonstrated a maneuver or procedure, he will practice as the instructor feels necessary (7:viii-ix).

Thus, the syllabus gives the individual instructor great latitude in establishing the flow of training up to the solo phase. Also, the syllabus fails to prescribe details for maneuver continuity. Syllabus latitude allows excessive instructor interpretation of the syllabus flow. Additionally, the FIP syllabus contains loose guidelines and non-detailed instructions concerning deficient maneuvers. "Special evaluation flights will be administered to any student being considered for elimination for lack of flying ability or upon recommendation of his instructor" (7:xi). At first glance, the loose FIP syllabus guidelines can be easily defended. The syllabus design gives the civilian instructor pilot the flexibility to individually tailor his instruction to maneuvers which require the most repetition. However, this syllabus flaw also allows the instructor to "carry his student" to the solo phase without identifying unsatisfactory performance or progress. These syllabus loopholes, when combined with negative human elements of flight instruction, promotes non-screening.

Other instructor flaws are inherently hidden in human aspects of flight instruction. A civilian flight instructor takes great pride in his ability to solo his students. He judges his worth as an individual instructor on the number of students he solos. If the instructor notes a student's unsatisfactory performance or slow progress, he mistakenly identifies the

problem as his inability to teach or correctly train the student. Therefore, flight screening becomes not a reflection of the student's inability to fly, but instead, the instructor's inability to instruct. This faulty reasoning eventually becomes a powerful excuse to "carry a student" to the solo phase. Additionally, civilian instructors do not have long range vision. Without UPT experience, they cannot visualize present substandard T-41 performance as future unsatisfactory T-37 performance. These human flaws of instruction allow the instructor to concentrate almost entirely on the pattern and landing phase of instruction. This phase is important because it is the first real test of the student's ability. The instructor has to step out of the airplane and the student is on his own. Simply stated, the ability to solo becomes the sole factor for evaluating a student's ability to complete FIP.

The FIP evaluation process is another faulty dimension which results in poor screening. Like the instructor dilemma, the roots of this problem are found in both the syllabus and human elements of flight evaluation. Civilian check pilots evaluate the students' performance during end-of-course checkrides administered after 11.5 hours dual and .5 hours solo (7:31). Additionally, the syllabus calls for special evaluation checkrides. "The special evaluation flight is given to any student being considered for elimination for lack of flying ability, upon recommendation of his instructor, or for failure to solo after 11.0 hours dual instruction" (7:xi). The syllabus

allows the checkpilot to "take all factors into consideration" as he evaluates the student's performance to "FAA standards and tolerances for airspeed, altitude, and heading" (7:xi). The syllabus gives the checkpilot too much latitude in the evaluation process (11). This apparent loophole may cause the evaluating pilot to overlook unsatisfactory performance because he "takes too many factors into consideration."

Hidden pressures also challenge human elements necessary for an impartial checkride. ROTC detachments are required to fill their entry quotas for UPT. Thus, screened pilot candidates in the ROTC pipeline affect future UPT entry quotas. Basically, the detachment and contractor are judged by the number of students completing FIP training. Pilot quotas must be met and, as a result, passed checkrides become preferable to failed ones. The evaluator, like the instructor, is faced with a subtle pressure to pass the student. If the student performs satisfactorily prior to solo and completes the solo phase successfully, the evaluator is under additional pressure to pass the student. When the checkpilot passes a marginal student (which he usually does), the entire checkride process is compromised. Furthermore, a passed checkride adds positive reinforcement to the instructor to continue inflated grading and "carrying the student" to solo. Eventually, the problem becomes one which feeds on itself and, in the process, very few individuals are eliminated for flying deficiency. All these factors--loose syllabus interpretation of the checkride process, emphasis on filling pilot quotas, and a

student's prior inflated performance influencing the evaluator--account for virtually no FIP checkride failures.

The entire process is allowed to continue for one basic reason--the ROTC flying program goes unchecked by military flying personnel. Neither the instruction phase, nor the checkride process is evaluated by flying TRCO military advisors; thus, one could say the "fox is guarding the henhouse." Without military involvement during the standardization and evaluation processes, the contractor becomes his own flying quality evaluator and unsatisfactory performance goes unchecked. As a result, the contractor accomplishes essentially no screening. Instead, the contractor's success is evaluated by how many students successfully complete the program. Consequently, ROTC FIP attrition remains consistently low while UPT attrition continues to rise. ROTC must consider new changes to correct old problems.

ROTC must change its philosophy from "getting the student through" to "screening for potential to complete UPT." This change toward a screening philosophy can be found in the Flight Screening Program (FSP). FSP was initially consolidated and designed for the purpose of screening. However, many external factors diluted its original purpose to motivation and "getting everyone through." As a result, FSP took steps to return to a screening emphasis. The following discussion covers some of the significant changes made by FSP in developing a screening philosophy. First, FSP restructured its syllabus to spell out operational requirements for a more credible screening

philosophy. As an example, the purpose of FSP was changed "to provide a selection process to identify trainees who possess the potential to enter and successfully complete USAF Undergraduate Pilot Training (UPT)" (2:1). Additionally, progress checks were given a new purpose: "the student must demonstrate the potential to complete the UPT program" (2:6). Also, the syllabus was changed to require maneuver continuity, thereby increasing instructor awareness of either satisfactory performance or regression. The FSP syllabus took on "structure" and required "syllabus compliance" throughout the flight screening process. With these syllabus changes, screening became FSP's philosophy. Likewise, ROTC must develop the same attitude.

Another aspect which promotes a screening philosophy in FSP is a strong USAF military presence. The Deputy Commander for Flying Operations is required to make many syllabus directed decisions. Military flying instructors fly numerous evaluation and instructional sorties. A military standardization and evaluation pilot flies all initial and annual checkrides with civilian instructors. Military checkpilots also fly student instructional sorties throughout the syllabus flow. Additionally, they fly a representative cross section of all end-of-course checkrides. Finally, only a military checkpilot can fly the student's final progress check (FPC). Overall, the military is constantly evaluating as the civilian contractor performs the screening process.



Military presence is not only limited to flying. TRCO personnel monitor flying safety, student management, buddy IP programs, civilian supervisor check out programs, contract maintenance, and civilian operated runway supervisory units. The philosophy of screening permeates throughout the contract monitoring process. Like FSP, ROTC must take appropriate steps to include this military presence throughout its screening program.

Finally, FSP emphasizes a screening philosophy by basing its program's success on its students' performance in UPT. Computer printouts inform the individual instructor if his former student completes or eliminates from UPT. Instructors take an interest in their former students' UPT success. An instructor's success becomes, not only his ability to teach, but also, the ability to screen and produce a worthy product for UPT. Instructors also gain a valuable insight of the UPT environment by identifying with their former student's performance. A bridge is established between FSP performance and future UPT potential. This relationship promotes a healthy screening philosophy.

In conclusion, a tightly structured FSP syllabus, a strong military presence, and a recognition of a student's UPT potential creates a totally different philosophy in FSP compared to FIP. In order to effectively screen for UPT, ROTC must incorporate these changes into its program. Without a FSP screening philosophy, ROTC will continue to make superficial fixes, but not really address initiatives which effectively screen for UPT.

## Chapter Four

### OPERATIONAL SCREENING CRITERIA

A change in screening philosophy must also be supported by a change in operational criteria. For this reason, the FSP syllabus contains detailed guidance for the many facets of screening. A structured syllabus approach is essential for a number of reasons. Civilian supervisors and instructors are usually unfamiliar with military flight training and its associated jargon. As a result, the Air Force can expect a superior screening product only when it provides the contractor with a complete document containing detailed instructions (11). Additionally, the screening process is usually an individual's first experience in Air Force training. Screening sets the tone for all other training programs which follow. Thus, the screening process should be conducted under professional, well defined guidelines. A structured syllabus, addressing a broad range of contingencies, is essential for a successful screening program. Finally, a structured syllabus provides a foundation for impartiality and fairness to an elimination program. Students are judged on their ability to fly under tough, but universally applied guidelines. Overall, a structured syllabus provides the foundation for a highly standardized and uniformly evaluated screening model.

A structured FSP syllabus establishes several operational criteria essential for screening. Screening should be the end result of quality training (11). Unsatisfactory flight instruction often results in unsatisfactory evaluations; thus, one must be properly taught before he can be properly evaluated. As a result, FSP has established, in its syllabus and civilian contract guidance, many standardized elements for its instructors and supervisors. All civilian instructors must be trained by the contractor and evaluated by the military before they are allowed to instruct student pilots. After the instructors are cleared to fly with students, supervisors closely monitor their grading practices and student management (4). The syllabus also provides detailed guidance involving mission grading procedures and policies. Additionally, new instructors are assigned a buddy instructor pilot (BIP) to answer any questions and occasionally fly with the new instructor's students. All instructors are required to attend weekly continuation training meetings and monthly standardization meetings which highlight and clarify student training and grading practices (4). These instructor programs provide the backbone for a standardized instructor cadre. Hopefully, the end product of standardized instruction will be a student who can be properly and fairly evaluated.

Another operational element involves standardized policies regarding SIE, MOA, and airsickness. FSP initially attempted to "manage" its SIE rate. As a result, many agonizing hours were spent convincing (begging) a student not to self eliminate. As a

result, a large percentage of those students eventually eliminated in Officer Training School or pilot training. A rising SIE rate in UPT and OTS forced FSP to adopt a more realistic approach. The student was counseled concerning the consequences of self elimination and given time to reflect on his decision and its implications. If he still decided to eliminate, military supervisors honored his decision. In the end, everyone benefitted from a more realistic approach. Similarly, policy should also address MDA or apprehension resulting from being in the air. The FSP syllabus states:

. . .real fear of flying can interfere with a student's judgment, decision making ability and physical control of the aircraft. Manifestation of apprehension can include such things as passive or active airsickness, insomnia, loss of appetite, anxiety and tension related to the flying environment (2:9).

For these reasons, possible MDA students are required to see a flight surgeon for counseling. After counseling, an operational decision must be made about elimination (1). ATCR 161-3 and ATCR 51-2 provide the necessary guidance. Apprehension of flying is an inherent phenomena in a screening program. As a result, the elimination process should develop a definite screening policy for MDA students.

Finally, a standardized policy must address those students who continually become airsick. "Airsickness is defined as active (vomiting) or significant passive (disabling or disruptive nausea)" (2:9). ATCR 51-2 provides guidelines for airsick students. Students who cannot progress through a structured syllabus due to airsickness must be eliminated. Additional

review rides and covert syllabus non-compliance for airsick students defeats the screening process. Those who fall behind syllabus flow should be screened. In conclusion, a successful screening program must consistently allow for elimination due to SIE, MOA, and airsickness (5). A standardized policy, combined with quality, standardized instruction, results in the best training possible.

After one has received quality training, he should be carefully evaluated. Thus, another necessary operational element for successful screening is competent, professional evaluation. FSP demands a structured evaluation process. The end-of-course evaluations (given after 13.0 hours) and the initial progress checks (given as a result of unsatisfactory progress) are flown by both civilian and military checkpilots. The final progress check (given as a result of a failed end-of-course or initial progress check) is flown only by the military (2:6). Military checkpilots also closely monitor the evaluation process in other ways. They periodically fly with civilian checkpilots to monitor standardization. As one pilot simulates the student, the other evaluates his performance. This interchange between civilian and military checkpilots results in a more standardized checkride process. Additionally, the FSP contract requires the military to fly a given percentage of all end-of-course checkrides. In the process, the military evaluates contract compliance and standardization. Flying checkrides moves the military contract evaluator from behind the desk into the flight room and cockpit.

Here, he can more effectively evaluate the screening process. Overall, military involvement in the checkride process is critical for successful screening.

After a student fails the final progress checkride, the elimination process continues through faculty board action and command review. The faculty board acts as an investigating body to evaluate the adequacy of training. Faculty board proceedings allows the student to verbally critique his training and evaluation. Minor training deviations need not necessitate the student's re-entry into training. Instead, the faculty board must carefully consider if the student has been given a fair and impartial opportunity at becoming a future pilot. If the program has been fair and the student has failed, the faculty board recommends elimination to the commander. All that remains is the commander's review of the student's instruction and evaluation throughout the elimination process. The commander makes the final decision regarding elimination. He should be well versed about the screening process and confident of his personnel's ability to make sound decisions. The commander should be constantly aware that his review decisions send nonverbal signals to those beneath him. If the commander reinstates screened students into training for no apparent reason, he casts serious doubts about the validity of the screening process. His screening cadre of instructors and supervisors may quickly develop serious attitude problems. Questions may surface such as "why screen them if the commander just puts them back in?" or

"what's the sense of all this work, let's just get them through the program?" For these reasons, the commander must individually evaluate each student's training and make appropriate, well-thought-out decisions. He should not be guided by attrition figures which are "too low" or "too high." Instead, he must rely on the dedicated professionalism of his instructors and supervisors. Only then can the commander make the "right" decision concerning those who are screened. A commander's comprehensive review completes the elimination process and validates the screening objective.

Another operational requirement focuses on those who enter UPT. The screening process must be constantly tuned to the environment for which it screens--UPT. FSP has established a computer tracking system which provides timely information about a students' performance in pilot training. By closely monitoring UPT attrition, FSP recognizes and analyzes trends in UPT training. After analyzing UPT attrition, supervisors make appropriate changes to the screening model. Additionally, computer analysis provides instructors with an instrument for critiquing their instruction. Checkpilots gain an opportunity to evaluate their personal standards. The entire screening process benefits by recognizing students' UPT performance.

An additional means of "checking out" the UPT environment is by staff assistance visits. Screening experts should be constantly aware of what is happening in the UPT arena by scheduling periodic visits to each UPT wing. A student's



performance is best evaluated by a detailed gradebook analysis of his UPT performance. By comparing a student's performance in UPT with his former performance in FSP, supervisors can incorporate changes in the screening process to provide a more positive correlation. Overall, it becomes extremely difficult, if not impossible, to successfully screen for pilot training if one has little first hand knowledge about current UPT trends.

In conclusion, effective screening for pilot training results from structured, operational criteria. Syllabus directed training contributes to efficient screening. Competent instruction, combined with operational directives for SIE, MOA, and airsickness, provide the basis for sound training. Screening is an end result of sound training. Impartial evaluation follows competent, standardized instruction. After deficient students are identified through the evaluation process, faculty boards and commanders provide the final quality control for the screening model. Additionally, those students who complete FSP and enter UPT must be carefully monitored. Their UPT progress, or lack of it, should be analyzed and reprogrammed into the screening model. Only through this well-defined, structured process can effective screening take place.

## Chapter Five

### ROTC SCREENING ALTERNATIVES

The high UPT attrition of ROTC students forced ROTC to seek a new approach for FIP "screening". Past ROTC initiatives to increase FIP attrition, thereby reducing UPT attrition, have had few visible results. Therefore, ROTC developed alternatives which would decrease UPT attrition by more effective FIP screening (9). These alternatives include:

#### A. Maximize FSP at Lackland AFB, TX

- ROTC would send as many students to FSP as possible
- Approximately 450 students per summer
- Would encompass both basic military training and flight screening

#### B. Retain Effective ROTC FIP Detachments

- After analyzing UPT attrition, retain effective ROTC detachments
- Detachments convert to FSP syllabus
- Probably 10-12 detachments which fall in this category

#### C. Develop Regional Flight Screening Center

- Using the FIP syllabus, open a summer flight screening center to screen ROTC students
- Open bids and choose a Civilian Contractor to conduct screening
- ROTC students who do not go through Lackland FSP or retained ROTC detachments would be screened by this method
- Embry-Riddle Aeronautical University (Daytona Beach, FL) is high on the list of possible sites

D. Maximize ROTC Students with Private Pilots License

- Those with PPL have a high positive correlation for completing UPT
- PPL students would not have to attend a light aircraft screening program.

ROTC must carefully evaluate and consider the logistics of each alternative. However, the ability to effectively screen is the most important criterion. "Only this criterion really accomplishes the screening goal"(11). ROTC alternatives must be evaluated with this emphasis--an effective screening philosophy and operational screening criteria.

## Chapter Six

### EVALUATING THE ALTERNATIVES

Successful screening requires more than logistics of gathering personnel, arranging for facilities, awarding contracts, and negotiating airspace. Foremost, the ROTC alternatives must be evaluated against an effective screening philosophy and operational criteria essential for a successful program. In this light, the four ROTC alternatives will be examined.

#### 1. Maximize FSP (Lackland AFB, TX)

This alternative is a proven success. The test program (Summer 1984) produced outstanding results in both screening and military training. Its military supervisors and civilian contractor are already well versed on the screening philosophy and syllabus requirements. Additionally, this alternative can provide "screening" training for TDY, ROTC supervisors. The expertise of these individuals will be invaluable in either the ROTC detachment or the regionalized screening alternatives.

Some negative aspects exist. Only 450 students can be processed through the summer program. Very few ROTC officers are needed since permanent FSP military supervisors are already in place. Thus, ROTC gains very little on-the-job screening experience for its personnel.

#### 2. Retain ROTC Detachments

This alternative must be closely evaluated. Comprehensive computer analysis of UPT attrition is essential for this alternative's success. Only the most effective screening detachments should be continued. Also, some of the detachments will press to retain their flying programs due to political or financial reasons. This alternative will produce the desired screening results only if it is closely monitored by computer analysis and military QAE.

On the other hand, using ROTC detachments for screening has obvious disadvantages. Civilian contractors will be very reluctant to wholeheartedly adopt a more structured FSP syllabus

since the old FIP syllabus allowed so much flexibility and contractor control (12). Additionally, the contractor may be expected, if not pressured, to mirror the same screening results as FSP. If ROTC attrition is lower than FSP attrition, students may recognize the difference between the two programs. Another negative aspect involves the lack of experienced ROTC screening experts needed to monitor the program. Without military control, this alternative will accomplish very few of the essential operational screening requirements. To correct this situation, ROTC should provide "screening" education to its ROTC military evaluators. A traveling ROTC "check section" to monitor quality control will also be needed. On the surface, this alternative can be easily implemented; however, a continuing analysis will be essential for effective screening results.

### 3. Regionalized Flight Screening

ROTC officials rate this alternative very high for screening success. A facility like Embry-Riddle, FL has a contractor and aircraft already in place. The facilities can accommodate approximately 400 students (12). Additionally, some of their ROTC personnel gained screening experience from the 1984 FSP summer test program. With these logistical problems partially solved, one would undoubtedly favor this alternative.

On the other hand, this alternative is also plagued with question marks. Analysis of Embry-Riddle's FIP attrition shows little difference from other ROTC detachments (12); thus, the program must adopt a new screening philosophy and operate under a more structured syllabus. Some of Embry-Riddle's military members were coordinators during the FSP test program. However, they made very few decisions concerning the actual screening process since the FSP civilian contractor and syllabus were already well established. If ROTC elects to initiate its own summer screening program, the military will be making military training decisions. At the same time, they may be overloaded with screening questions from a new contractor. A question remains about ROTC's expertise in making screening decisions. If they lack expertise, screening will undoubtedly suffer. Furthermore, the attrition resulting from this alternative will, most certainly, be compared to the attrition of ROTC students and the summer FSP program. Overall, a change in screening philosophy and operational criteria is essential. Screening success is impossible without an experienced "screening cadre" to fly checkrides and monitor the program. Without this military contingent, screening attrition will probably remain at its same low level.

### 4. Maximize Private Pilots Licenses (PPL)

Traditionally, those with private pilots licenses have performed exceptionally well in UPT (11). These students have already demonstrated the ability to fly in the civilian arena. Also, they have displayed self initiative by investing their own time and money towards flying. Since they possess a PPL, they

are not required to attend a flight screening program; therefore, ROTC should increase its emphasis on recruiting these students. Why not consider a new ROTC program which allows partial payment for instructional flying hours to students who obtain their PPL while enrolled in ROTC? ROTC could also reclassify students who are medically qualified to fly. If a student enters ROTC as a navigator due to the lack of available pilot slots, but obtains a PPL, why not allow him to reclassify as a pilot? Additionally, funds could be aimed toward advertising to recruit potential PPL students for an Air Force career. This alternative contains many benefits and almost no negatives.

In conclusion, all four alternatives can produce the desired result--a qualified UPT candidate. Positive results are easily realized by maximizing FSP and searching for more candidates with private pilots licenses. The same results can probably be obtained by retaining effective ROTC screening programs and developing a new regionalized flight screening approach. However, a new direction in philosophy and an adherence to operational screening directives is essential for the success of these latter two alternatives. Additionally, an experienced military screening cadre must be developed within ROTC to effectively monitor the screening process. Without military control the civilian contractor becomes his own evaluator. This approach has not worked in the past and holds little chance for success in the future.

## Chapter Seven

### THE BEST SCREENING MIX

After careful evaluation, ROTC must decide which alternative or combination of alternatives produces the desired screening results. They must temper this decision with consideration for the number of students involved. Approximately 1300 ROTC students will be required to enter the screening pipeline in order to provide approximately 1000 screened candidates for UPT (9). If screening attrition rises over 23%, the number entering the screening process will have to be increased accordingly. Constrained by these numbers, the best mix of screening alternatives should be:

	<u>Number of Students</u>
-Maximize FSP (Lackland)	450
-Retain 10-12 ROTC Detachments using FSP syllabus	225
-Establish a new summer screening program at Embry-Riddle, FL	400
-Maximize Private Pilot License Candidates	<u>225</u>
	1300

#### Rationale:

- FSP at Lackland is a proven program producing desired screening and military training results. ROTC can use this program as a training springboard for the other screening programs.



- Some ROTC detachments can effectively screen using the FSP syllabus if closely monitored by flying military quality assurance evaluators. Computer analysis of UPT attrition is essential. Political and financial constraints will pressure ROTC officials to retain ROTC flight screening at selected detachments.

- A new summer screening program at Embry-Riddle will be required to accommodate the excess students as ROTC detachments lose their FIP. Only with direct military control and flight evaluations can this alternative produce the desired results. Additionally, ROTC must use the summer FSP program as a "training experience" for those running the Emory Riddle program.

- With a renewed emphasis for recruiting more PPL students, it is possible for more than 225 students to enter UPT. This alternative produces the most cost effective, positive results of any of the alternatives.

In conclusion, a combination of alternatives will be required to screen the necessary number of students. All four alternatives will require a more dedicated, more informed ROTC military presence. Military monitors must be attuned to screening verses "getting the student through." They must be totally familiar with the syllabus and demand syllabus compliance from their civilian supervisors and instructors. They must be tough, but fair. The only real hope of achieving the desired results--more effective screening--is found in a concerned, dedicated, and educated military cadre.

## Chapter Eight

### UNSOLVED ISSUES

Initially, this study set out to stress what is really important in the screening process and select an appropriate alternative which effectively screens for UPT. However, several additional issues surfaced which warrants ROTC/ATC attention. These issues are presented; many without answers. They include:

1. Loss of ROTC Rated Positions: As ROTC loses its FIP programs, will the requirement for rated positions decrease at each detachment? One can only guess that during a pilot shortage, ROTC will be the first to lose its rated staff due to operational requirements. As a result, the ROTC environment may lose its "flying character" as these positions are filled with non-rated personnel.
2. Screening: A Long Term Approach: In order to adequately evaluate a screening program based on UPT results, one has to wait at least 2 years for the pipeline flow. Analysis of UPT results and appropriate screening inputs requires long lead times. Are ROTC/ATC officials prepared to wait this long? Will the next general demand the same screening approach?
3. Differences in Screening Attrition: Since FSP is an existing, proven program, the other screening initiatives will probably be evaluated using a FSP model. Also, ROTC students will be quick to note differences in screening attrition. These different programs will, undoubtedly, be rank ordered from least to most difficult. Will ROTC officials be prepared to answer congressional inquiries about the differences in attrition since all of the programs will be standardized using the same screening syllabus?
4. Limited "Screening" Experience in ROTC: While there are a number of ROTC personnel familiar with the FIP program, very few are familiar with a new screening philosophy and operational criteria inherent in the FSP syllabus. In addition, very few opportunities currently exist for them to gain this experience. Can ROTC personnel effectively supervise new screening programs

at ROTC detachments or Embry-Riddle? Should ROTC consider a TDY program to FSP to gain valuable screening experience? ROTC flying personnel could go TDY to Lackland, observe an entire class, and gain firsthand screening knowledge. This approach might prove to be the "cheapest" method of gaining valuable experience in a limited amount of time.

5. Delegation of Responsibility: Who is in control here? At the present time ATC/DOT is restructuring the ROTC screening syllabus. A new position has been established in DOT to monitor (administer) new ROTC screening concepts (11). At the same time, ROTC headquarters has responsibility for each ROTC FIP detachment. It pays the contractors and answers all questions regarding syllabus compliance. Future problems are predictable as new ROTC screening programs are initiated. In the future, ROTC and ATC will be required to more efficiently delegate responsibility for the screening process in order to avoid duplication of effort and indecision.

6. What's Our Business? ROTC, in the past, has been reluctant to focus on "what's our business" in its flying program. ROTC must become more dedicated to the screening aspects of its program. Motivation and indoctrination are found in a structured screening environment. Is ROTC ready to make tough screening decisions? Does it have the screening expertise to produce positive screening results? ROTC has a historical flying attrition of 1.5%. Can it conduct a screening program which may result in a 15-20% flying training deficiency?

7. Contractor/Military Coordination: In the past, both the civilian contractors and ROTC military monitors were concerned with "getting the student through." However, the emphasis must change to "getting the qualified student through" and "eliminating those who cannot complete UPT." This change in philosophy will require close military-civilian cooperation and coordination. Both must pursue the same goal.

This study emphasizes the need for a change in ROTC's flight screening. UPT attrition rates have increased to alarming rates. Past ROTC initiatives to curb UPT attrition have been ineffective. ROTC and ATC officials must now be dedicated toward new and more effective changes. Many individuals are currently working the logistical issues required for these new screening concepts. However, the most important issue again appears to be pushed to the periphery. Effective screening can only result

from a new screening philosophy backed by structured syllabus requirements. This philosophy and syllabus compliance must be closely supervised, monitored, and evaluated by flying military members. These military members must be "screening" experts. They must be supported by dedicated commanders who are well versed in all aspects of a successful screening model. Without these essential screening ingredients, ROTC can gather its personnel together, feed them, house them, march them, and fly them, but not screen them.

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computer analysis or UPI attrition is essential for this alternative's success. Only the most effective screening detachments should be continued. Also, some of the detachments will press to retain their flying programs due to political or financial reasons. This alternative will produce the desired screening results only if it is closely monitored by computer analysis and military QAE.

On the other hand, using ROTC detachments for screening has obvious disadvantages. Civilian contractors will be very reluctant to wholeheartedly adopt a more structured FSP syllabus

impossible without an experienced screening team to do the checkrides and monitor the program. Without this military contingent, screening attrition will probably remain at its same low level.

#### 4. Maximize Private Pilots Licenses (PPL)

Traditionally, those with private pilots licenses have performed exceptionally well in UPT (11). These students have already demonstrated the ability to fly in the civilian arena. Also, they have displayed self initiative by investing their own time and money towards flying. Since they possess a PPL, they



screening and military training results. ROTC can use this program as a training springboard for the other screening programs.

tough, but fair. The only real hope of achieving the desired results--more effective screening--is found in a concerned, dedicated, and educated military cadre.

4. Limited "Screening" Experience in ROTC: While there are a number of ROTC personnel familiar with the FIP program, very few are familiar with a new screening philosophy and operational criteria inherent in the FSP syllabus. In addition, very few opportunities currently exist for them to gain this experience. Can ROTC personnel effectively supervise new screening programs

working the logistical issues required for these new screening concepts. However, the most important issue again appears to be pushed to the periphery. Effective screening can only result



